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07/29/2011

EXAMINER
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TUGBANG, ANTHONY D

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/981,556  
Filing Date: October 17, 2001  
Appellant(s): SLEZAK, ARNOLD G.

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Mitchell K. McCarthy  
For Appellant(s)

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed on April 29, 2011, appealing from the Office action mailed on November 15, 2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

The BPAI Decision, dated August 31, 2009, of the instant application (serial no. 09/981,556, Appeal 2009-000747).

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1, 3 and 5 through 9 and 21 through 24.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except

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for the grounds of rejection (if any) listed under the subheading “WITHDRAWN REJECTIONS.” New grounds of rejection (if any) are provided under the subheading “NEW GROUNDS OF REJECTION.”

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant’s brief.

**(8) Evidence Relied Upon**

6,801,990	Kuroba et al	7-2000
JP 5-205442	Ogawa, Y.	8-1993

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims. The rejections below are repeated from the last Office Action (Final Rejection, dated November 15, 2010, merely for the convenience of the BPAI and the appellant(s).

***Claim Rejections - 35 USC § 112***

**Claims 1, 3, 5 through 9, and 21 through 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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In Claim 1, the recitation of "the prewritten discs placed around the motor hub with respect to each other so that the alignment axes amount the plurality of prewritten discs are angularly disposed symmetrically around the motor hub" (lines 6-9) is new matter. The specification and drawings, as originally filed, provide no written description of any alignment axes of the prewritten discs being angularly disposed *symmetrically* around the motor hub. The specification, as originally filed, does not even use the terms of "angularly disposed" or "symmetrically".

**Claims 1, 3, 5 through 9 and 21 through 24, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

In Claim 1, it is unclear from the disclosure what is meant by the phrase of "a direction of an alignment axis...symmetrically around the motor hub" (lines 3-9).

A person having ordinary skill in the art would not understand what is claimed when the claims are read in light of the specification. The claims recite the prewritten discs have servo tracks that are "are offset in a direction of an alignment axis that is in the same angular direction for all of the plurality of prewritten discs" and the discs are placed "so that the alignment axes among the plurality of prewritten discs are angularly disposed symmetrically around" the motor hub.

The specification describes a process of locating an alignment mark on a prewritten disc and rotating and aligning the prewritten disc with a biasing force in a direction toward the center of the disc. The specification does not describe the applicant(s) invention in terms of an "alignment axis that is in the same angular direction for all of the plurality of prewritten discs"

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and “discs are placed so that the alignment axes among the plurality of prewritten discs are angularly disposed symmetrically around the motor hub”. A person of ordinary skill in the art would not understand what *alignment axis* is being referred to. For example, angular directions for the discs can occur into and out of the page (of Figure 2). Therefore, it would be impossible to determine an alignment axis that would be the very same angular direction for all of the discs in a plane into and out of the page (of Figure 2). Accordingly, the claims terms are not sufficiently described in the specification and the meaning of the claims is undeterminable, subject to plural interpretations, and therefore indefinite.

***Claim Rejections - 35 USC § 102***

**Claims 1, 3, 5 through 7 and 9, as best understood, are rejected under 35**

**U.S.C. 102(b) as being anticipated by Kuroba et al 6,081,990.**

Kuroba discloses a method comprising: placing a plurality of prewritten discs 20, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of an alignment axis that is the same angular direction for all of the plurality of the prewritten discs in relation to a center of the respective prewritten disc, around a motor hub (spindle 21), the prewritten discs placed around the motor hub with respect to each other so that the alignment axes among the prewritten discs are angularly disposed symmetrically around the motor hub (col. 8, lines 31+); and after the placing step, biasing each of the plurality of prewritten discs in a direction of the respectively alignment axis to concentrically align the servo tracks of a first disc of the plurality of prewritten discs with the servo tracks of a second disc of the plurality of prewritten discs (see various embodiments of Figures 1a, 4, 7a, 7b, 8a and 8c).

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The term “biasing” is read as the effect of balancing the disc, or movement of the disc, necessary for balancing the discs on the hub during assembly of the disc drive (see col. 8, lines 31+). The claimed “alignment axis” can be read as an axis line either perpendicular to each disc through reference marker 22, or at some angle (i.e. into and out of the page of Figure 4) from the disc surface drawn through the reference marker 22.

Regarding Claim(s) 7, Kuroba further teaches a reference mark 22 that can be read as the “indicia”

Regarding Claim(s) 3, Kuroba further teaches that biasing includes pressingly engaging each disc, which would include an edge of each disc against the motor hub.

Regarding Claim(s) 5, in Kuroba if the alignment axis is drawn at some angle from the disc surface (into and out of the page of Fig. 4) for each disc, then the placing step would have one alignment axis of one disc symmetrically placed with respect to another alignment axis of another disc, being non-collinear.

Regarding Claim(s) 6, in Kuroba if the alignment axis is drawn perpendicular to the disc surface for each disc, then each alignment axis would be collinear.

Regarding Claim(s) 9 Kuroba further teaches that an alignment axis can comprise of a first indicia and a second indicia (see col. 6, lines 65+), i.e. more than one reference mark 22, in which the second indicia is different from the first indicia because each are at different locations. One location of the first indicia would include a first line that is coextensive with the angular reference and a second line (taken from a second or different indicia) would be angularly disposed from the first line of the first indicia. The first and second indicia of Kuroba can be

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said to be on different sides of the disc to the same extent that the applicant's first and second indicia are on different sides of the disc.

***Claim Rejections - 35 USC § 103***

**Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroba et al in view of Japanese Patent 5-205442 (referred to hereinafter as JP'442).**

Kuroba discloses the claimed manufacturing method as relied upon above in Claim 1. Kuroba does not mention that the indicia includes a laser index mark.

JP'442 teaches that an indicia (inner surface of discs) can include a laser index mark 12 to advantageously have quality information on the disc itself (see PURPOSE).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the indicia of Kuroda by including the laser index mark, as taught by JP'442, to positively provide quality information in the disc itself.

**(10) Response to Argument**

**112, First Paragraph**

The appellant first urges that the 112, first paragraph rejection lacks merit because the appellant has demonstrated that the written description requirement supports the features surrounding the terms of "angularly disposed" and "symmetrically" and the requirement of *in haec verba* is not needed (pages 5 and 6 of the brief).

The examiner's position is not unreasonable because in reviewing the specification as a whole, these features are nowhere recited. During prosecution, Claim 1 was amended to include



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these features and the addition of these limitations surrounding these features depart from the disclosure of the application as filed (MPEP § 2163.02).

The appellant secondly urges that the examiner has failed to establish a *prima facie* case in that the written description does not support the claimed subject matter (pages 6-12 of the brief).

The examiner's claim construction was reasonable and was considered as a whole. The first part of Claim 1 recites:

placing a plurality of prewritten discs, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of ***an alignment axis*** *that is in the same angular direction for all of the plurality of prewritten discs in relation to a center of the respective prewritten disc*, around a motor hub...

The emphasis here for Claim 1 is the explicit relationship between the claimed "alignment axis" and the "center of the respective prewritten disc". As the examiner has stated, the specification nowhere provides a frame of reference regarding the claimed "alignment axis" because the specification does not define any alignment axis. In utilizing the ordinary, plain meaning of the claim language, each respective prewritten disc certainly has a center in which an *alignment axis of the disc* passes through this center that can be perpendicular to the disc. While it is clear that each prewritten disc has servo tracks defined by a particular concentricity on each disc, the claimed "alignment axis" can be read as one in which the direction is perpendicular to the concentricity of the servo tracks on the disc as this is in *the same angular direction* (i.e. a direction perpendicular to the upper or lower flat surface of the disc), or *parallel*, to the alignment axis that passes through the center of the disc. As such, the claimed "alignment axis" is parallel and offset from the alignment axis that passes through the center of the disc. This

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claim construction by the examiner is merely using the plain ordinary meaning of the claim and is problematic for the appellant because such an interpretation is not supported by the specification.

For the appellant to argue that the features of the claimed "alignment axis" can "*only be limited to the direction of the servo track concentricity on the surface of the disc*", or that it "*must be in the same plane, as the disc plane, or disc surface*", or "*coextensive with an alignment mark on the disc surface*", is insignificant to the extent that the claims do not recite any of these features. The appellant is arguing much more specifically than that which is claimed. Again, the specification provides no explicit definition as to what is considered to be an "alignment axis".

In regards to the features of "symmetrically", Claim 1 goes on to further recite:

the prewritten discs placed around the motor hub with respect to each other so that *the alignment axes* among the plurality of prewritten discs are *angularly disposed symmetrically around the motor hub...*

The examiner acknowledges that the specification clearly provides support for a plurality of prewritten discs being placed around the motor hub with respect to each other. Support can be said to be there also for placement of the prewritten discs such that each is angularly disposed relative to each other. However, the specificity of each being placed in a *symmetric manner, or angularly disposed symmetrically*, around the motor hub, is nowhere to be found in the disclosure.

The appellant further argues that the direction of the biasing forces are applied symmetrically because the appellant believes that their specification discloses that the biasing forces for a particular disc can be applied in an opposite direction from any disc above and below that particular disc, or at even intervals about a circumference of the disc (page 11 of the brief).

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For this part of Claim 1, the biasing is recited as:

after the placing step, biasing each of the plurality of prewritten discs in *a direction of the respective alignment axis* to concentrically align the servo tracks of a first disc of the plurality of prewritten discs with the servo tracks of a second disc of the plurality of prewritten discs

The examiner acknowledges that the appellant's specification defines the biasing aspects in relation to "alignment marks" and that these biasing forces may be applied in different directions to the disc. However, this does not imply that the biasing forces are applied *symmetrically*. While the specification may provide one example of one biasing force at a certain angle from another biasing force, a whole host of scenarios can occur in which the biasing forces are applied in different directions from one another that are certainly not symmetrical. Furthermore, in reading that the "respective alignment axis" can be one that is perpendicular to the disc (as previously discussed), or in a plane that is not parallel to a main disc surface, the specification provides no such support for any application of symmetrical biasing forces in directions that are not parallel to the surface of the disc.

#### 112. Second Paragraph

Throughout the brief, the appellant uses Figure 2, and the description of Figure 2, in their specification to prove that the claim language is supported by the specification and that their claim language is clear and definite.

In addition to the examiner's position (as noted above) that the specification does not support the appellant's claim language, the examiner urges that the scope of Claim 1 is not entitled to plural interpretations that would contradict the specification.

Figure 2 and the description of it by the specification, describe the appellant's invention in reference to alignment marks, not any alignment axes. The board had concerns with the appellant's claim language in a previous decision of this case<sup>1</sup>. To apply this same analysis by the board to the now claimed phrases "alignment axis", "angular direction" and "symmetrically", would once again render the current claim language as indefinite. Moreover, by interpreting the "alignment axis" as one that is perpendicular to the disc surface, or in a direction that is not in the same plane as the main disc surface, would again render claim language as indefinite because these two interpretations would contradict the specification.

#### 102 Rejections

In regards to the merits of Kuroba, the appellant argues (on pages 16-18 of the brief) that Kuroba does not disclose:

placing a plurality of prewritten discs, each prewritten disc having servo tracks characterized by a concentricity offset in a direction of *an alignment axis that is in the same angular direction* for all of the plurality of prewritten discs in relation to a center of the respective prewritten disc, around a motor hub (lines 2-5 of Claim 1, emphasis added).

The examiner disagrees. Kuroba shows a plurality of prewritten discs (e.g. 20), each having servo tracks with a concentricity on the surface of the disc. The discs are prewritten prior to being placed on a motor hub (21) of a disc drive (e.g. col. 7, lines 14-18). Figure 4 of Kuroba shows one illustrative example of the placement process of the prewritten discs. The prewritten disc (20) clearly has a center (e.g. D), in which an alignment axis can be drawn through this center that is perpendicular to the disc surface, or one that is into and out of the page of

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<sup>1</sup> BPAI Decision, dated August 31, 2009, pages 4 to 5.

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Figure 4, through D. The prewritten disc (20) additionally has servo tracks (written on the surface between the inner and outer diameters of the disc) characterized by one concentricity at reference marker 22, as one concentricity of the servo tracks can be taken at the inner diameter of the disc. An alignment axis taken at this concentricity of reference marker 22 is one that is drawn through the reference marker 22, again perpendicular to the surface of the disc, or into and out of the page of Figure 4, through 22. So it is clear that the claimed "alignment axis" of the concentricity of the servo tracks (through 22) is parallel and *offset* to the alignment axis of the center of the disc (through D), when both are perpendicular to the surface of the disc, so both would be in the "same angular direction".

Furthermore, biasing of the prewritten discs occurs by applying a biasing force (e.g. weight 25) for each disc at a location relative to the alignment axes of the center of the disc and concentricity of the servo tracks. The placement of this weight has one component of force that biases in a downward direction (through 25, perpendicular to the disc surface) that is in a direction parallel to the respective alignment axes (e.g. through 22) to concentricity.

Accordingly, this interpretation of Kuroba meets all of the limitations of Claim 1.

The appellant appears to be saying Kuroba does not meet the above limitations because Kuroba writes the servo tracks on the discs individually and in different directions with respect to the contact positions against the motor hub

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(pages 17 and 18 of the brief). These arguments, while carefully considered by the examiner, appear to be misplaced to the extent that the claims never require that the servo tracks on the discs be written "simultaneously" and it appears that the appellant is arguing much more specifically than that which is claimed. The claims do not exclude Kuroba from writing servo patterns on the discs individually. The examiner reiterates that the servo patterns that are written on the discs of Kuroba are clearly on the surface of the disc between the inner and outer diameters of the disc and the claimed "alignment axis" of this concentricity can be taken at the contact position between the inner diameter of the disc and the outer diameter of the motor hub (e.g. through reference marker 22).

With respect to Claims 3, 5 through 9 and 21 through 24, the appellant's statements for each of these claims stand or fall together with Claim 1.

No art rejections have been applied to Claims 21 through 24.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/A. Dexter Tugbang/

Primary Examiner, Art Unit 3729

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